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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,550	07/19/2006	Masayuki Saito	TAN-127	6235
54630	7590	09/03/2008	EXAMINER	
ROBERTS & ROBERTS, LLP			HAILEY, PATRICIA L	
ATTORNEYS AT LAW				
P.O. BOX 484			ART UNIT	PAPER NUMBER
PRINCETON, NJ 08542-0484			1793	
			MAIL DATE	DELIVERY MODE
			09/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/586,550	SAITO, MASAYUKI
	<b>Examiner</b>	<b>Art Unit</b>
	PATRICIA L. HAILEY	1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 July 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/19/06</u> .  | 6) <input type="checkbox"/> Other: _____ .                        |

Applicant's Preliminary Amendment, filed on July 19, 2008, has been made of record and entered. In this amendment, claims 3-10 and 16-18 have been amended to eliminate multiple claim dependency and to recite proper U. S. Patent claim format, and new claims 19 and 20 have been added.

Claims 1-20 are now pending in this application.

*Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on March 25, 2004. It is noted, however, that applicant has not filed a certified copy of the Japanese application (No. 2004-090350) as required by 35 U.S.C. 119(b).

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. *Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (U. S. Patent No. 4,537,873, Applicants' submitted art).*

Kato et al. disclose a catalyst comprising precious metal particles supported on a carrier obtained from titania as a first component and, as a second component, at least one metal oxide selected from oxides of magnesium, strontium, lanthanum, yttrium, cerium, zirconium, silicon and tin. See the Abstract of Kato et al., as well as col. 2, lines 23-44 (**claims 1 and 8-13**).

Examples of the precious metal component supported on the carrier include platinum, palladium, ruthenium, and iridium (**claim 7**). As starting materials, salts and complexes of these precious metals may be employed. See col. 3, lines 47-61 of Kato et al.

The catalyst is prepared by first preparing the carrier (col. 3, lines 1-46; col. 3, line 67 to col. 4, line 27) and then preparing colloidal precious metal particles by dissolving a high polymer in an aqueous solution containing precious metal ions, and heating the resultant solution. During such a period, the precious metal ions are deposited as metal fine particles in the solution by reduction (said reduction is considered to read upon **claims 2 and 15**). The resulting colloidal dispersion can then be supported on a carrier via techniques such as a dip method, a spray method, or the like conventionally used.

See col. 4, line 28 to col. 5, line 6 of Kato et al., which also discloses the steps of mixing a rare-earth metal oxide powder with the colloidal precious metal particles, followed by drying and calcining (considered to read upon **claim 14**).

Examples of the aforementioned high polymer include poly(vinyl alcohol), poly(vinyl pyrrolidone), and gelatin (a polyamino acid). See col. 5, lines 13-17 of Kato et al. (considered to read upon **claims 4-6, 16-18, and 20**).

With respect to **claims 3 and 19**, it is considered that because Kato et al. disclose a catalyst that structurally reads upon that instantly claimed (i.e., in terms of components), one of ordinary skill in the art would reasonably expect the catalyst of Kato et al. to be water-soluble, absent the showing of convincing evidence to the contrary.

Kato et al. also do not disclose that the precious metals have "10 to 50,000 atoms". However, because Kato et al. disclose precious metals that read upon Applicant's claimed "metal species", one of ordinary skill in the art would reasonably expect that the precious metals of Kato et al. would exhibit a number of atoms falling within Applicant's claimed range, absent the showing of convincing evidence to the contrary.

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICIA L. HAILEY whose telephone number is (571)272-1369. The examiner can normally be reached on Mondays-Fridays, from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICIA L. HAILEY/  
Examiner, Art Unit 1793  
September 2, 2008